

WHAT IS CLAIMED IS:

1. An electron-beam drawing apparatus for drawing a desired pattern by applying an electron beam formed by using a plurality of apertures onto the surface of a sample,
5 comprising a first quadrangular aperture in which two opposite sides are parallel with each other and each corner forms a right angle, a second parallelogrammatic aperture in which two opposite sides are parallel with each other, and deflection means for an electron beam passing through
10 the second aperture, wherein a desired pattern is drawn on the surface of a sample.
2. The electron-beam drawing apparatus according to claim 2, wherein the second parallelogrammatic aperture
15 has a diagonal width of 1 μm or less and a longitudinal width which can be changed depending on the first aperture.
3. The electron-beam drawing apparatus according to claim 1, wherein oblique-side-portion-contour
20 decomposition means for cutting out an oblique-side portion of a drawn shape at a predetermined width adjusted to an aperture shape is included to draw the cut-out oblique-side portion by using the parallelogrammatic aperture.
- 25 4. The electron-beam drawing apparatus according to

claim 3, wherein a code is added to a parallelogram, a triangle, and a quadrangle of a figure cut out by oblique-side-portion-contour decomposition means respectively and aperture-number generation means
5 corresponding to the figure codes are used to draw an oblique-sideportionbyusingavariableparallelogrammatic aperture and the inside portion of an oblique side by using a triangular aperture and a quadrangular aperture.

10 5. An electron-beam drawing method for drawing a desired pattern by applying an electron beam formed by using a plurality of apertures onto the surface of a sample, comprising the steps of forming a light beam by a first quadrangular aperture in which two opposite sides are
15 parallel with each other and each corner forms a right angle, forming a light beam by a second parallelogrammatic aperture, deflecting the light beams in accordance with an electron-beam drawn shape passing through the second aperture, and drawing a desired pattern on the surface of
20 a sample.

6. Theelectron-beamdrawingmethodaccordingtoclaim
5, wherein an oblique-side contour portion is decomposed, a code is added to a parallelogram, a triangle, and a
25 quadrangle of a figure cut out through decomposition and

aperture numbers corresponding to the figure codes are added to draw an oblique-side portion by using a variable parallelogrammatic aperture and the inside portion of an oblique side by using a triangular aperture and a quadrangular aperture.

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